

ELECTRON BEAM APPARATUS HAVING ELECTRON ANALYZER AND METHOD OF CONTROLLING LENSES

ABSTRACT OF THE DISCLOSURE

An electron beam apparatus having an electron analyzer is achieved which can control the illumination lens system by feedback without adversely affecting the imaging action even if a specimen is positioned within the magnetic field of the objective lens. The apparatus has an energy shift control module for controlling energy shift. On receiving instructions about setting of energy shift from the CPU, the control module issues an instruction for shifting the accelerating voltage to a specified value to an accelerating-voltage control module. The control module also sends information about the energy shift to an energy shift feedback control module, which calculates the feedback value and supplies information about corrections of lenses and deflection coils to a TEM optics control module. The feedback value is multiplied by a corrective coefficient that can be calibrated.